

NJDEP Diesel Risk Reduction Program



Diesel particulate is...



- ⌘ Linked to premature deaths
- ⌘ Air toxic and likely carcinogen
- ⌘ Asthma trigger
- ⌘ Cause of chronic respiratory disease

Diesel Risk Reduction Program

- ⌘ Mandatory Retrofit Program
- ⌘ Outreach and Demonstration Projects
- ⌘ Diesel Vehicle Inspection & Maintenance Program

Mandatory Retrofits



- ⌘ Law requires NJDEP to reduce diesel particulate emissions
- ⌘ Requires and funds crankcase and tailpipe retrofits on 40,000 diesel vehicles
- ⌘ Requires NJDEP to study if tailpipe retrofits are needed on school buses.
- ⌘ Strengthens anti-idling enforcement

Regulated Vehicles



- ⌘ School Buses – not like the others

- ⌘ Solid Waste Vehicles

 - ☑ Publicly owned or in a contract w/public entity

- ⌘ Public & Private Commercial Buses

- ⌘ Publicly-owned on- road vehicles

- ⌘ Publicly-owned off-road equipment

Reimbursement



- ⌘ 100% of cost of retrofit hardware & installation
- ⌘ Device and Authorized Installer must be on State Contract
- ⌘ Direct reimbursement to Authorized Installer
 - ☑ No out of pocket costs to fleet owner
- ⌘ Fuel costs are ineligible.

Benefits



- ⌘ 300 tons PM reduction
- ⌘ 150 premature deaths avoided
- ⌘ up to \$1.4 billion in economic savings

School Buses

- ⌘ Install closed crankcase ventilation system (CCVS) on engine
- ⌘ Reduce children's exposure to in-cabin level of fine particulate matter
- ⌘ Results of school bus study said no tailpipes needed for in-cabin benefits



School Bus Process

- ⌘ School bus owner must install CCVS by July 6, 2010.
- ⌘ Owner submits CCVS cost estimate spreadsheet prior to installation
 - ☑ Electronic Submittal through NJDEP Online Portal
 - ☑ NJDEP approve cost estimate
- ⌘ Recordkeeping Requirements



Other Regulated Vehicles

(Garbage Trucks, Commercial Buses, Publicly-owned On/Off-Road)




- ⌘ Install **Best Available Retrofit Technology (BART)**
- ⌘ Meet minimum particulate reductions defined in rule based on vehicle type & engine model year.
- ⌘ USEPA or CARB verified technologies.
- ⌘ CARB - www.arb.ca.gov/diesel/verdev/vt/cvt.htm
- ⌘ USEPA - www.epa.gov/otaq/retrofit/verif-list.htm
- ⌘ Warranty- hardware, installation and engine damage

Exempt vehicles



- ☒ On-Road Diesel Engine at 0.01 g/bhp-hr
- ☒ Off-road Diesel Engine (175-750 HP) at 0.015 g/bhp-hr
- ☒ Off-road Diesel Engine (>750 HP) at 0.03 g/bhp-hr
- ☒ Agricultural/Farm Equipment

BART Levels



BART Level	<u>Minimum</u> Control Efficiency (particulate matter reduction by weight %)
3	85 % (Diesel Particulate Filter)
2	50 % (Flow Through Filter)
1	25 % (Diesel Oxidation Catalysts)

Control Efficiency determined according to verification results from USEPA or CARB

BART Levels

<u>Vehicle or Equipment Type</u>	<u>Engine Model Year</u>	<u>Minimum BART Level</u>
Solid waste vehicle	1988-2006	BART 2
	1987 and older	BART 1
Commercial buses	1994-2006	BART 3
	1988-1993	BART 2
	1987 and older	BART 1
Publicly owned on-road vehicle other than a commercial bus or solid waste vehicle	2006 and older	BART 2
Publicly owned off-road equipment >175 hp	1996-2014	BART 3

BART Process



- ⌘ Owners submit Inventory, cost estimate & Notice of Intent to Comply or Fleet Plan.
- ⌘ NJDEP approves cost estimate and provides installation deadline and compliance form.
- ⌘ Owner certifies installation on Compliance Form.
- ⌘ Authorized Installer requests reimbursement.
- ⌘ Installation verified at annual inspection and random audits by NJDEP.

Submittal deadlines



- ⌘ Solid Waste Vehicles 6/6/2008
- ⌘ NJ Transit est. 3/2010
- ⌘ Private Commercial Bus est.
9/2010
- ⌘ Other Gov't vehicles/equipment 9/8/2011

Outreach and Demonstration Projects

Spreading the word about
why idling stinks...



NJ's Idling Rules



- ⌘ Rules in effect since 1986 (N.J.A.C. 7:27-14)
- ⌘ Diesel Retrofit Law strengthened idling regulations by clarifying enforcement roles and increasing fines
- ⌘ Early focus of program was reducing diesel school bus idling due to children's health risk (volunteer pledge)
- ⌘ Program expanded to target other diesel sources (trucks, buses, trains), and now off-road construction vehicles/equipment and gasoline vehicles (cars)

NJ's Idling Rules



- ⌘ 3 minute limit, with some exceptions, such as:
 - ☒ If temperature <25 F, 15 minutes when engine has been off for >3 hrs.
 - ☒ 15 minutes for actively discharging or picking up passengers.
- ⌘ Major exemptions:
 - ☒ stopped in line of traffic;
 - ☒ need engine for lift gates, refrigeration, etc.;
 - ☒ emergency vehicle in emergency situation;
 - ☒ during repair or inspection;
 - ☒ using sleeper berth in a non-residential area until May 2010, then banned.
- ⌘ Operation of auxiliary power units (APUs) allowed



Outreach Effort

- ⌘ “Compliance Alerts”
- ⌘ Mailings to affected groups
- ⌘ Press releases and events
- ⌘ Truck idling alternatives including truckstop electrification and auxiliary power units were funded



No Idling Pledge

for School Districts

We pledge to protect the health and well-being of the students and staff of our school district. We recognize that buses are the safest mode of student transportation, yet excessive school-bus emissions of soot from idling are a threat to children's health.

To protect students and staff from harmful soot, we voluntarily pledge:

- To turn off engines while waiting to load and to unload students*
- To use newest buses for the longest routes*
- To maintain buses to eliminate any visible exhaust*
- To complete school-bus driver training on eliminating idling*

School or School District: _____

Town: _____

School Administrator's Signature : _____

School Administrator's Name (Printed): _____

School Administrator's Title: _____

Signed on this date: _____

State of New Jersey
Department of Environmental Protection
Lisa P. Jackson, Commissioner



No Idling Signs



Idling Enforcement



- ⌘ Idling sweeps by enforcement target locations with frequent idling
- ⌘ Respond to specific complaints with inspection
- ⌘ Vehicle owner receives \$250 penalty
- ⌘ Property owner where idling occurs receives \$250 penalty, which is mitigated if owner installs “No Idling” signs
- ⌘ Most inspections delegated to County Health officers



Diesel Vehicle Inspection & Maintenance Program

Overview

- ⌘ Goal: Ensure vehicles are well maintained
- ⌘ 18,000 lbs and more (heavy duty) = annual inspection for emissions & safety. Also subject to random roadside enforcement.
- ⌘ <8,500 lbs (light duty) must go to annual inspection for safety. Emissions test will be added ~ end of 2009.
- ⌘ Emergency vehicles such as ambulances and fire engines are exempt.



Diesel Inspection & Maintenance Program



- Annual emissions inspection by licensed Diesel Emission Inspection Center (DEIC).
- Heavy duty vehicles, both NJ- registered and out-of-state, are subject to roadside inspection.
- Vehicles failing roadside emissions test have 45 days to be repaired and re-inspected.
- Penalty for failing roadside inspection is \$700, reduced to \$150 with proof of repair.

Diesel Emission Standards

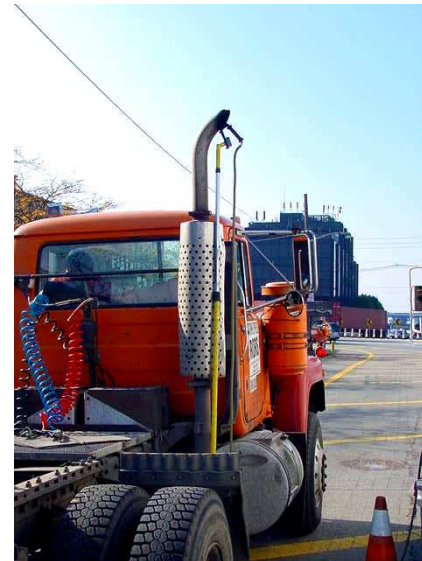


New standards effective Dec 09

1997 and newer	< 20% peak opacity
1991 – 1996	< 30% peak opacity
1990 & older	< 40% peak opacity

Roadside Enforcement

Dedicated roadteams are staffed by MVC and State Police personnel.



Fixed and random inspection sites provide statewide coverage.

Future Program Enhancements



- ⌘ Transition to OBD testing instead of opacity.
- ⌘ Expand the program to include mid-range vehicles currently not inspected.
- ⌘ Advanced emission testing, wireless and/or remote information collection.

Contacts



Diesel Risk Reduction Program

609 292-7953

www.stopthesoot.org